



Serial No. 10/622,970 – Patrick Pignot, et al.
Art Unit: 2874 Attorney Docket 229.021
Second Preliminary Amendment
Page 2 of 7

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (canceled)
2. (canceled)
- 3 (canceled)
4. (canceled)
5. (canceled)
6. (canceled)
7. (canceled)
8. (canceled)
9. (canceled)
10. (previously presented) An optical coupler for transmitting an optical signal between a first device and at least a plurality of second devices, the optical coupler comprised of at least a plurality of optical fibers, the first device disposed in optical

communication with a second end of each one of the at least the plurality of optical fibers, one second device disposed in optical communication with the first end of at least one of the at least the plurality of optical fibers, and another second device disposed in optical communication with the first end of at least another one of the at least the plurality of optical fibers with the at least the plurality of fibers having each one of its second ends placed head to head with the first device.

11. (previously presented) The optical coupler of claim 10 further comprising a ferrule in which each one of the second ends of the plurality of the optical fibers are retained.

12. (previously presented) The optical coupler of claim 11 wherein each one of the second ends are stripped, disposed side-by-side, and stuck in the ferrule.

13. (previously presented) The optical coupler of claim 12 wherein a portion of the stripped optical fiber is situated inside the ferrule and further comprising a first shaft that surrounds that portion of each optical fiber which is not stripped.

14. (previously presented) The optical coupler of claim 13 further comprising a second shaft surrounding the first shaft, the ferrule, and at least the unstripped portion of each optical fiber.

15. (previously presented) The optical coupler of claim 14 wherein the second shaft is stuck on the first shaft.

16. (previously presented) The optical coupler of claim 14 wherein the second shaft forms a Y-shaped conduit around each one of the optical fibers.

17. (previously presented) The optical coupler of claim 16 further comprising a sensitive outer surface covering the cumulative surfaces of two side ends of the first device.

18. (previously presented) The optical coupler of claim 17 wherein the first device is a transmitter and each second device is a receiver.

19. (previously presented) An optical coupler for conveying an optical signal comprising:

- (a) a transmitter;
- (b) a pair of receivers;
- (c) a pair of optical links with each optical link having one end disposed in communication with the transmitter, the other end of one optical link disposed in communication with one receiver, and the other end of the other optical link disposed in communication with the other receiver, wherein a stripped end of the one end of one optical link and a stripped end of the one end of other optical link are disposed adjacent each other;
- (d) a ferrule disposed adjacent the transmitter in which each one of the stripped ends of each one of the optical links are disposed;
- (e) a first protective shaft surrounding each one of the optical links and disposed between the transmitter and the receivers;
- (f) a second protective shaft surrounding the first shaft and forming a generally Y-shaped conduit; and
- (g) at least one sheath disposed between the first and second protective shafts and which extends from one end of the transmitter to one end of each receiver.

20. (previously presented) An optical coupler comprising:

- (a) a transmitter;
- (b) a pair of receivers;
- (c) a pair of optical fibers that each have an outer covering with each optical fiber having one end stripped of the outer covering and connected to the transmitter with the stripped one end of one optical fiber disposed side-by-side with the stripped one end of the other optical fiber, the other end of one optical fiber stripped and connected to one receiver, and the other end of the other optical fiber stripped and connected to the other receiver; and
- (d) a shaft that forms a generally Y-shaped conduit and extends about each one of the optical fibers with one end of the shaft overlying at least a portion of the transmitter and the other end of the shaft overlying at least a portion of each one of the receivers.

21. (previously presented) An optical coupler comprising:

- (a) a transmitter;
- (b) a pair of receivers;
- (c) a pair of optical fibers that each extend from the transmitter to one of the receivers with one of the optical fibers extending from the transmitter to one of the receivers and the other one of the optical fibers extending from the transmitter to the other one of the receivers;
- (d) a shaft that forms a generally Y-shaped conduit and extends about each one of the optical fibers with one end of the shaft overlying at least a portion of the transmitter and the other end of the shaft overlying at least a portion of each one of the receivers;

(e) a first sheath that underlies the shaft, that overlies the optical fibers, and that extends from an end of the transmitter toward each one of the receivers; and

(f) a second sheath that underlies the shaft, that overlies the optical fibers, and that extends from an end of both receivers toward the transmitter with one of the sheaths overlapping the other one of the sheaths.

22. (previously presented) An optical coupler comprising:

(a) a transmitter;

(b) a pair of receivers;

(c) a pair of optical fibers that each extend from the transmitter to one of the receivers with one of the optical fibers extending from the transmitter to one of the receivers and the other one of the optical fibers extending from the transmitter to the other one of the receivers;

(d) a first shaft that surrounds each one of the optical fibers and that is disposed between the transmitter and the receivers;

(e) a first sheath that overlies the first shaft and that extends from an end of the transmitter toward each one of the receivers;

(f) a second sheath that overlies the first shaft and that extends from an end of both receivers toward the transmitter with one of the sheaths overlapping the other one of the sheaths; and

(g) a second shaft that overlies the sheaths and forms a generally Y-shaped conduit that extends from the transmitter to the receivers and has one end overlying at least a portion of the transmitter and has another end overlying at least a portion of each one of the receivers..